REMARKS/ARGUMENTS

Applicant has received the Office Action dated September 7, 2010 (hereinafter "Office Action"), which 1) rejected claims 90-106 under 35 U.S.C. § 101; 2) rejected claims 73-89 under 35 U.S.C. § 112, first paragraph; 3) rejected claims 11-14, 65-68, 82-85, and 99-102 under 35 U.S.C. § 112, second paragraph; and 4) rejected claims 1, 8-13, 18, 55, 62, 63, 65-67, 72, 73, 80-84, 89, 90, 97-101, and 106 under 35 U.S.C. § 103(a). Claims 1, 55, 73, 82 and 89-90 have been amended in this response. Based upon the arguments presented herein, Applicant respectfully submits that all claims are in condition for allowance.

I.   Examiner Interview

Applicant thanks the Examiner for the telephone interview of December 2, 2010. An overview of the preferred embodiment of the present invention and its distinctions with the cited art were presented and the 35 U.S.C. § 103 rejections were discussed. Applicant thanks the Examiner for clarifying his positions on and interpretation of the references.

II.   Claim Objections

The Office Action objected to claim 82 because the claim recited "the method of claim 73," instead of reciting "the switch of claim 73." Claim 82 has been amended to correct the informality. Withdrawal of the objection is thus requested.

III.   Rejection of Claims 90-106 Under 35 USC § 101

Claims 90-106 were rejected under 35 USC § 101, as being directed to non-statutory subject matter because of the recitation of "A computer readable storage medium." While Applicant respectfully disagrees, in the interest of compact prosecution, Applicant has amended claim 90 to refer to "A non-transitory computer readable storage medium." In view of the amendment of claims 90-106, Applicant respectfully requests that this rejection be withdrawn.

IV.   Rejection of Claims 73-89, 11-14, 65-68, 82-85, and 99-102 Under 35 USC 112

Claims 73-89 were rejected under 35 USC § 112, first paragraph as failing to comply with the enablement requirement, because they were single means claims. Applicant has amended claims 73-89 to add other elements to the claims. In view of the amendment of claims 73-89, Applicant respectfully requests that this rejection be withdrawn.

Claims 11-14, 65-68, 82-85, and 99-102 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, because of the recitation of the phrase "normal routing rules." Applicant respectfully traverses the rejection.

The specification clearly provides support and explanation for what normal routing rules are in the Fibre Channel protocol. For example, the specification describes that routing of information between the switches occurs according "to a routing protocol called Fibre Channel Shortest Path First (FSPF)." Published Application, ¶ [0006]. The specification goes on to explain that in a situation where a source routing flag is set, the method may "not use the switches' inherent routing as defined by the FSPF specifications and its topology database." Id. at ¶ [0050]; see also ¶ [0051]. Moreover, a person of ordinary skill in the art of Fibre Channel Networks will know that the normal protocol in Fibre Channel is the FSPF. Thus, normal routing rules are described in the specification and are well known in the art. Accordingly, Applicant respectfully requests that the rejection of claims 11-14, 65-68, 82-85, and 99-102 be withdrawn.

V.   Rejection of Claims 1-18, 55-63, and 65-106

Claims 1, 18, 55, 62, 63, 65-67, 72, 73, 80-84, 90, 97-101 and 106 were rejected under 35 USC § 103(a) as being unpatentable over US Patent No. 6,538,997 to Wang (hereinafter "Wang") in view of US Patent No. 6,137,797 to Bass (hereinafter "Bass"). Applicant respectfully traverses the rejection.

Independent Claims 1, 55, 73 and 90

In rejecting the independent claims, the Office Action stated that although "Wang does not explicitly disclose multiple switching unites in a switch," Bass discloses such multiple switching units by teaching multiple Port Modules. Office Action, p. 5.

Applicant respectfully traverses the characterization of the Port Modules taught by Bass, noting that an overly broad definition of "switching unit" is being applied. Each of the independent claims requires a switching unit. For example, claim 1 requires "a plurality of interconnected switching units coupled to the plurality of ports, each switching unit performing routing and switching functions."

In contrast to the Office Action's position, the Port Modules disclosed in Bass do not perform any switching functions and thus do not disclose the switching units recited in the claims. As explained in detail in Bass and shown in Figure 1, the Port Modules of Bass connect each of its ports to a Switch Fabric 14. Bass, Col. 4, ll. 55-56. It is the Switch Fabric 14 that "provides the switching functions between the respective modules." Bass, Col. 4, l. 66-Col. 5, l. 1. The Port Modules determine the route by, for example, "determining the Port of Exit (POE) for a frame received from the port to which it is connected" or placing "a Switch Control Header in each frame received so that the frame *can be routed* to the specific POE to which a destination station is connected." Id., Col. 7, ll. 32-36. Thus, even though the Port Modules of Bass determine the route, they do not do the actual switching to transport the frames to their destination. The actual transporting (switching) is done by the Switch Fabric 14. However, the Switch Fabric 14 does not disclose multiple interconnected switching units. Accordingly, neither the switch Fabric 14, nor the Port Modules disclose "a plurality of interconnected switching units coupled to the plurality of ports, each switching unit performing routing and switching functions," as recited in the amended claim 1.

For at least these reasons, Applicant respectfully submits that neither Wang nor Bass, either alone or in combination, teach or suggest all of the limitations of independent claims 1, 55, 73 and 90 (claims 55, 73, and 90 included limitations similar to those discussed above with respect to claim 1 and have been similarly amended). Applicant therefore respectfully submits that independent claims 1, 55, 73 and 90 are not rendered

obvious under 35 U.S.C. § 103(a) by any of the cited art, and thus respectfully requests withdrawal of the rejection of claims 1, 55, 73 and 90 and their dependent claims.

Dependent Claims 9, 63, 81 and 98

In rejecting dependent claims 9, 63, 81 and 98 as allegedly obvious over the cited art, it was stated in the Office Action that,

> Wang discloses *adding information to the payload of the frame when the*
>
> *frame is traveling from the original source to the original destination and from the*
>
> *original destination to the original source* (Col.3 lines 65-67 the bridges will add
>
> their respective identifiers such as their respective MAC addresses, or other
>
> internal identifiers and Col.4 lines 14-20 The data added to the packet include an
>
> identifier of the node. The data may include other information such as a port on
>
> the node at which the trace packet was received and transmitted).

Office Action, p. 7.

Applicant traverses the rejections of the claims, noting that Wang does not teach or suggest adding information to a frame when the frame is sent from the packet's original destination back to its original source

The Office Action states that Wang teaches this limitation by disclosing an mtrace which typically starts at the destination of the path that is to be diagnosed. Applicants respectfully disagree. The claims require that a frame travel from an original source to an original destination (see claims 8, 62, 80, and 97, from which claims 9, 63, 81, and 98 depend, respectively), that the same frame travel back from the original destination to the original source, and that information be added to the frame each way it travels. The mtrace command disclosed in Wang is a completely different command from what the claims recite. Different commands would have to be used in each direction, so that the same frame would not receive both source to destination and destination to source information.

Wang thus does not teach or suggest all of the limitations of claims 9, 63, 81 and 98. Applicant therefore respectfully requests withdrawal of the rejections of these claims.

Dependent Claims 13, 67, 84 and 101

Further, in rejecting dependent claim 13, 67, 84 and 101 as allegedly obvious over the cited art, it was stated in the Office Action that,

> Wang discloses *using normal routing rules used for frames not having*
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> *information added to the payload of the frame if the source routing information*
>
> *does not indicate a device directly connected to the switch* (Col.3 lines 58-59
>
> This MAC address is interpreted as a sink and Col.3 lines 62-64 The bridges that
>
> have layer-2 trace logic look at the contents of the packets and determine the
>
> actions that they should take upon the packet).

Office Action, pp. 8-9.

Applicant respectfully traverses the rejections, noting Wang does not teach or suggest any specific method for performing the forwarding taught. Thus Wang cannot and does not teach or suggest using normal routing rules used for frames not having information added to the payload of the frame if the source routing information does not indicate a device directly connected to the switch, as required by the claims. The Examiner argues that Wang teaches using normal routing rules for frames not having information added to the payload of the frame by teaching that the bridges look at the content of the packets and determine the actions that they should take upon the packet. Applicant respectfully submits that this teaching of Wang does not disclose using "normal routing rules." Nor does it specify that the normal routing rules are used for frames not having information added to the payload of the frame if the source routing information does not indicate a device directly connected to the switch.

For at least these reasons, Applicant submits that none of the cited art, either alone or together, teaches or suggests all of the limitations of dependent claims 13, 67, 84 and 101, and thus does not render the claims obvious. Applicant therefore respectfully requests withdrawal of the rejections of these claims.

Dependent Claims 18, 72, 89 and 106

In rejecting dependent claim 18, 72, 89 and 106 as allegedly obvious over the cited art, it was stated in the Office Action that,

> Wang discloses *determining if the switch was the original source of the frame, and if so, to capture the frame* (Col.3 lines 62-64 The bridges that have layer-2 trace logic look at the contents of the packets and determine the actions that they should take upon the packet).
> Office Action, p. 9.

Applicant respectfully traverses the rejections, noting that there is no basis whatsoever for interpreting the packet inspection and action determination by the bridges of Wang as teaching or even suggesting something as specific as the capture of a frame if a switch receiving the frame is the original source of the frame, as required by the claims. The Office Action asserts that "if a packet is transmitted back to the source, then once the source receives the packet it will capture the packet." Office Action, p. 15. This statement is a mere unsupported assertion. Wang is just too high level to provide any suggestion this detailed.

For at least these reasons, Applicant submits that none of the cited art, either alone or together, teaches or suggests all of the limitations of dependent claims 18, 72, 89 and 106, and thus does not render the claims obvious. Applicant therefore respectfully requests withdrawal of the rejections of these claims.

VI.   Conclusion

Applicant respectfully requests reconsideration and that a timely Notice of Allowance be issued in this case. Applicant believes that no extensions of time or fees are required, beyond those that may otherwise be provided in documents accompanying this response. Nonetheless, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Wong Cabello's Deposit Account No. 50-1922, referencing docket number 112-0139US.

Respectfully submitted,

/Azadeh Khadem/

December 7, 2010

Filed Electronically

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